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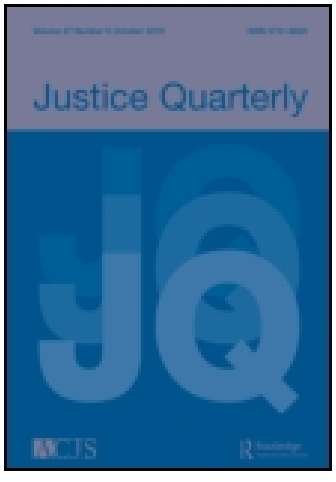

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Recidivism and the Propensity to Forgo Parole Release

Michael Ostermann

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This study investigates whether inmates who are unconditionally released at the end of their sentence because they opt out of the parole process could potentially benefit from community supervision. This research was conducted in response to a recently passed law in the state of New Jersey that targets this group for a mandatory six-month term of parole. The study uses propensity scores to match this group to discretionarily released parolees in order to simulate random assignment. Results indicate that those who voluntarily forgo parole consideration are significantly less successful after release according to several measures of recidivism, including rearrests, reconvictions, and community tenure. However, between-group differences are small. Findings suggest that some form of supervision may be beneficial for this group, but likely not in the fashion that is explicated in the current law.

Keywords parole; voluntary max out; recidivism; propensity score

Every year since the turn of the century, over half a million people are released from prisons across the nation and returned to our communities. The Bureau of Justice Statistics' (BJS) most recent data indicate that almost three-quarters of a million people were released from state and federal institutions in 2008 (Sabol, West, & Cooper, 2009). This number represents a 2% increase from the previous year. This increase was spearheaded by a dramatic rise in the number of returning offenders who are released unconditionally at the end of their sentence. These individuals "max out" in custody and are not supervised by community corrections' agencies after they are released. In 2008, the rate at

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which former inmates re-entered society unconditionally increased by 8% from the previous year. State institutions accounted for a 91% share of this increase, with federal institutions making up the remaining 9% (Sabol et al., 2009).

Recent research conducted on a New Jersey cohort of reintegrating former inmates suggests that many of those who are released from prison without community supervision experience this type of release because they choose to opt out of the parole process (Ostermann, 2010). In reaction to this "voluntary max out" population, New Jersey legislators have recently passed a law which will require a mandatory six-month term of supervision for all parole eligible offenders (New Jersey Statutes Annotated [N.J.S.A. 30:4-123.51d]). Signed into law in January 2010, this supervision term is required for both those who forgo parole consideration and inmates who have been denied parole release by the New Jersey State Parole Board (SPB). The first inmates affected by this law were released in January 2011.

This study investigates whether those who voluntarily forgo parole release could potentially benefit from supervision. In order to accomplish this, data from the SPB that highlights all inmates released from New Jersey prisons in 2006 are analyzed. This research simulates random assignment by matching voluntary max outs and discretionary parolees through the use of propensity scores. Offenders were matched on several demographic, criminal history, and instant offense variables. Post-release arrests and convictions are tracked for approximately three years. Recidivism outcomes are compared between both the total unmatched populations of voluntary max outs and the discretionary parole releases and the matched groups.

Background

Former inmates who are released unconditionally to our communities reintegrate into society without any step-down function, attachment or referral to community services by community corrections' officials, or proactive risk management by law enforcement entities. This group of returning ex-prisoners has become a cause for concern for many state-level policymakers, practitioners, and other community and criminal justice stakeholders (Travis, 2005). Due to positive findings about how to effectively manage the reintegrating population found within the "what works" literature, there is a growing consensus that if given the opportunity to supervise these former inmates, public safety may be increased (Travis, 2005). Nationally representative research has shown that a majority of reintegrating individuals are likely to recidivate within three years of leaving prison (Beck & Shipley, 1989; Langan & Levin, 2002). Analyses of nationally representative data have also demonstrated that those who are released to parole supervision only have nominal increases in post-release performance when compared with those released unconditionally (Solomon, Kachnowski, & Bhati, 2005). However, several state-specific and multijurisdictional meta-analytic studies have demonstrated that, if properly implemented,

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correctional programming that can be typically achieved through community corrections endeavors can have marked impacts on recidivism (Aos, Miller, & Drake, 2006; Dowden & Andrews, 1999a; Drake, Aos, & Miller, 2009; Lowenkamp & Latessa, 2005; Lowenkamp, Latessa, & Holsinger, 2006; Lowenkamp, Latessa, & Smith, 2006; Ostermann, 2009).

Recent research from the "what works" literature has provided substantial evidence that recidivism can be reduced through high-quality structured and intensive behavioral programming that targets offenders according to actuarially assessed risk in conjunction with their demonstrated criminogenic needs (Latessa, 1999; Latessa & Lowenkamp, 2006; MacKenzie, 2000). Programs that match the delivery of their services to the individual learning styles of offenders have been found to substantially reduce recidivism (Andrews, Bonta, & Wormith, 2006; Dowden & Andrews, 2004). Additionally, research has demonstrated that programming should occur shortly after the individual's release from incarceration in order to mitigate the time that an offender is most at risk of recidivating (Beck & Shipley, 1989; Langan & Levin, 2002; Petersilia, 2003; Taxman & Thanner, 2006; Travis, 2005). Several meta-analytic reviews have investigated the link between adhering to these principles and criminal justice outcomes. Findings have suggested that programs that target services to high-risk individuals in conjunction with their criminogenic needs can reduce recidivism by approximately 19% (Dowden & Andrews, 1999b). Additionally, findings from this literature have demonstrated that targeting programs at low-risk offenders can create iatrogenic effects on recidivism (Lowenkamp & Latessa, 2005). Despite evidence that rehabilitation can work, the persistent findings of high failure rates for former inmates in general and parolees in particular are discouraging for parole boards. This is especially true given that releasing authorities operating in discretionary systems have the ability to select inmates for parole who they deem to be the least likely to recidivate.

The discretionary parole process typically involves an inmate attending a release hearing prior to their parole eligibility date (Petersilia, 2003). At this hearing the potential parolee's bid for release is discussed after he or she has served a portion of their sentence in prison or jail and time allowances, such as commutation, work, and good time credit, are computed into their eligibility date (Caplan, 2007). In the state of New Jersey, if an inmate demonstrates that they are not likely to fail while on parole and that they have invested in their own rehabilitation (e.g., have not been involved in serious institutional disciplinary infractions, have participated in institutional programs, have a viable parole plan, have documented changes in attitude toward self and others, etc.), they can presume that they will be paroled on their eligibility date (N.J.S.A. 30:4-123.45, et. Seq.). Those who do not meet these criteria are denied parole, issued a future eligibility term, and given instruction on how to improve their chances for release on future consideration dates. Because of the discretionary nature of this process, parole eligible inmates are able to opt out of parole consideration altogether. After making the request to max out a sentence, these inmates are no longer considered for release by a board panel, are not

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required to attend parole hearings, and are eventually unconditionally released back into the community at the maximum expiration of their prison term.

This "voluntary max out" population has become a growing concern for criminal justice practitioners and policymakers in the state of New Jersey (Di Caro, 2010). The practice of voluntarily forgoing early release seems antipodal to the tenets on which parole as a system is built. Parole is offered as a reward and allows prisoners the opportunity to serve a portion of their sentence in the community in exchange for good behavior and pro-social involvement while incarcerated (Travis, 2005). However, approximately 40% of those who are unconditionally released in New Jersey, representing about 15% of the total released population in a given year, are released unconditionally per their own volition (Ostermann, 2010).

Local stakeholders have recently paid greater attention to this group of reentering former inmates and have identified them as a missed opportunity for potentially improving post-release outcomes (Associated Press, the, 2009; Di Caro, 2010). It is argued by these stakeholders that a mandatory term of supervision aimed at this subgroup could increase public safety by transitioning this otherwise unconditionally released population through the step-down procedure offered through parole (Di Caro, 2010). Rather than allowing this group of inmates to opt out of post-release supervision, and consequently the community-based services that are offered through parole, requiring a term of supervision will force this group to be transitioned from the prison to the community through parole. Additionally, these stakeholders argue that by forcing early release, the costs associated with housing this group of inmates in prisons could be mitigated through community supervision (Associated Press, the, 2009; Star-Ledger Editorial Board, 2010). Currently, it costs $49,191 per year to incarcerate an individual in the New Jersey Department of Corrections (DOC) (Lanigan, 2010).

A recently introduced law targets unconditional releases in general and the voluntary max out population in particular for mandatory supervision:

> An inmate sentenced to a term of incarceration in a State institution who (1) has declined to participate in the parole consideration hearing process or (2) has been denied parole release … shall … be released on parole on a date which precedes the date on which the aggregate of the inmate's court imposed term of incarceration is to end by six months. (N.J.S.A. 30:4-123.51d)

According to this law, all inmates who voluntarily forgo parole and who could have otherwise been discretionarily released (i.e., excluding mandatory parole supervision cases serving time for certain classes of violent or sex offenses) will be required to serve a minimum term of supervision of six months in the community. However, this law targets this population with little knowledge about the motivations of why this group of inmates makes this decision as well as how this group performs in the community after they are released. To date, only one study (Ostermann, 2010) has formally addressed this population.

Ostermann (2010) investigated the potential repercussions of allowing inmates to forgo parole release. This study analyzed the data of three years

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that highlighted recidivism patterns of 900 former inmates released from New Jersey prisons. The study subjects either voluntarily opted out of parole (n = 300), were unconditionally released due to parole denial (n = 300), or were discretionarily released to parole supervision (n = 300). Ostermann (2010) found that the voluntary max out population was more likely to be rearrested, reconvicted, and/or reincarcerated for new crimes after their release from prison when compared with those released to parole supervision. The study concluded that it was unlikely that many of the voluntary max outs would be paroled if their ability to opt out of the process was taken away. Ostermann (2010) came to this conclusion because voluntary max outs had, on average, very similar pre-release indicators that they were likely to fail in the community when compared with individuals who were forced to max out their sentence due to parole denials. Policy implications from this study indicated that discretionary releasing authorities should focus on the release opportunities that they do not capitalize upon rather than implementing policies that would take away an inmate's ability to forgo parole. These missed opportunities present themselves in the form of inmates who are similar to voluntary max outs who are denied parole on, at times, multiple occasions.

The current law does not necessarily take away an inmate's ability to voluntarily forgo parole, but rather forces them to be released to parole's supervision at least six months before the end of their sentence. However, the current law is based on an extremely limited knowledge base. Because the only currently available prior study of this population utilized a random selection process in order to identify samples, it is likely that some of the differences in recidivism between voluntary max outs and parolees were due to pre-release selection biases. This causes the answer to the question of whether those who voluntarily forgo early release could potentially benefit from parole supervision to remain unclear. Since the current New Jersey law indiscriminately targets all voluntary max outs for a period of supervision, the answer to this question is of paramount importance.

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Re-Entry and Recidivism

Former inmates face a myriad of challenges during their journey to reintegrate back into society. These individuals typically return home after a prolonged period of isolation (Travis & Petersilia, 2001) to a relatively small number of American neighborhoods (Lynch & Sabol, 2001). Former inmates often return home with unstable housing (Visher, La Vigne, & Travis, 2004) in the presence of substantial community-level risk factors with relatively low educational attainment (Gottfredson, Wilson, & Najaka, 2002; Harlow, 2003), limited job experience, and poor employment potential (Nagin & Waldfogel, 1998; Western, Kling, & Weiman, 2001). Many ex-prisoners return with significant substance abuse (Beck, 2000), mental (Prins & Draper, 2009) and physical health issues (Hammet, 2001). Despite these needs, less than a third of those who exit our nation's

prisons receive substance abuse or mental health treatment while incarcerated (Petersilia, 2003). For most across the nation, the journey of reintegration is not a successful one (Beck & Shipley, 1989; Langan & Levin, 2002).

The challenge of securing and maintaining stable housing is one of the most critical and immediate barriers that the reintegrating population is facing (Bradley, Oliver, Richardson, & Slayter, 2001). BJS figures highlight that approximately 13% of American prisoners experience homelessness during the year immediately prior to the start of their incarceration (Travis, 2005). While the private housing market represents approximately 97% of the total housing stock in the USA, it is oftentimes cost prohibitive for ex-inmates to secure these types of resources (Petersilia, 2003). Former inmates attempting to secure public housing experience difficulties also due to housing agencies and providers banning those convicted of certain felonies, such as drug and sex offenses (Petersilia, 2003). Consequently, most former inmates rely on living with their families as they transition back into society (Travis, 2005).

Incarceration has profound effects on family dynamics. A nationally representative sample of inmates indicated that approximately 25% of prisoners are married, 55% are parents, and 44% lived with their children prior to their incarceration (Mumola, 2000). While over 80% of the prisoners within this survey reported having contact with their children during their incarceration (Mumola, 2000), research has demonstrated that the absence of a parent due to incarceration creates emotional and financial strains for the children (Naser & Visher, 2006; Sharp & Marcus-Mendoza, 2001). Further, having an antisocial parent has been found to be one of the strongest predictors that an individual will be involved in violent or serious delinquency (Lipsey & Derzon, 1998; Petersilia, 2003). While the research behind how the formerly incarcerated navigate their family roles upon their release is limited (Naser & Visher, 2006), studies have demonstrated that families are generally supportive during the transition period (Shollenberger, 2009) and can have marked effects on successful desistance from crime (Bahr, Armstrong, Gibbs, Harris, & Fisher, 2005; Laub & Sampson, 2001).

The reintegrating population experience difficulties also in securing employment after their release. Research has consistently shown that having a legitimate job after being released from prison significantly lowers the likelihood that an individual will reoffend (Harer, 1994; Sampson & Laub, 1997; Visher, Winterfield, & Coggeshall, 2005). Findings have also suggested that for those who do eventually reoffend after release from prison, those who have a job experience significant increases in community tenure when compared to former inmates who do not obtain post-release employment (Tripodi, Kim, & Bender, 2010). However, many returning ex-inmates experience substantial difficulties in obtaining viable employment (Travis, 2005). Research has suggested that these difficulties may be caused because former inmates experience prolonged periods of isolation, which could potentially weaken contacts that could lead to employment opportunities (Visher et al., 2005; Western et al., 2001). Additionally, having a criminal record could preclude ex-inmates from being considered

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for jobs by employers (Bushway, 1998; Pager, 2003; Western et al., 2001). Further, many formerly incarcerated individuals are released without valid photo identification and other forms of documentation that are often necessary for obtaining legitimate employment (Visher, Yahner, & La Vigne, 2010).

Former inmates often return to our communities with substantial substance abuse problems. A BJS survey (Mumola & Karberg, 2006) of state inmates conducted in 2004 indicated that over 80% of inmates used drugs regularly at some point in their life, 56% had issues with substance abuse immediately prior to their incarceration, and a third were under the influence of drugs during the commission of the offense for which they were incarcerated. However, only 10% of state inmates report receiving substance abuse treatment while incarcerated (Mumola, 1999). Research has also suggested that many former inmates do not receive adequate substance abuse treatment in the community after they are released. A study conducted by the Urban Institute (UI) (Mallik-Kane & Visher, 2008) examined the post-prison experiences of over 1,100 former inmates. Findings from this study demonstrated that only 30% of the recently released population that had demonstrated substance abuse problems received treatment in the community. This low rate of treatment both while incarcerated and after release largely translates into the continued abuse of drugs and/or alcohol in the community, especially when former inmates are not subject to random drug testing as a part of post-release supervision (Visher & Courtney, 2006). Of those who had demonstrated substance abuse problems prior to their release, 40% reported current use in the UI's report (Mallik-Kane & Visher, 2008).

The UI's Returning Home study series (Baer et al., 2006; Visher & Courtney, 2006; Visher et al., 2004, 2010) serves as the most in-depth and comprehensive analysis of the manifold issues that ex-prisoners face as they attempt to reintegrate back into our communities. This series of studies highlights individual-level experiences of reintegrating offenders, their families, and the communities to which they return through the use of longitudinal data gathered from interviews with various stakeholders in Maryland, Illinois, Ohio, and Texas. Findings suggest that the challenges faced by the previously incarcerated are almost uniform from site to site. Common themes include that men and women of color are disproportionately affected by the criminal justice system, that the specific reentry experience that was being explored was not the individual's first attempt to reintegrate back into society, and that the reentering population has limited availability of established pre-release programs at their disposal while they are incarcerated (Visher et al., 2010).

These challenges have largely translated into post-release failure for those attempting to reenter society. Nationally representative studies conducted on 1983 and 1994 release cohorts across multiple states found rearrest rates of 62.5% and 67.5%, reconviction rates of 46.8% and 46.9%, and a return to custody rate of 51.8% within three years of release (Beck & Shipley, 1989; Langan & Levin, 2002). Follow-up reports indicate little differences in post-release performance according to release type (Solomon et al., 2005). Single-site recidivism studies have resulted in largely mixed findings, which are likely a result of

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differences in research methods, operationalization of dependent and independent variables, and variations in local parole policies and practices (Travis, 2005; Travis & Visher, 2005).

Recidivism analyses conducted on release cohorts in New Jersey have generally found that parolees are more successful at keeping themselves crime-free during their transition when compared to those who are unconditionally released (Ostermann, 2009; Ostermann, 2010; Schlager & Robbins, 2008; Veysey & Lanterman, 2008). However, all past efforts in this state have utilized some form of random selection to select sample groups. While this is a statistically viable method provided that statistical power concerns are adequately addressed, it is likely that many of the post-release differences in recidivism between unconditionally released and parole groups were due to pre-release selection biases that are inherent in the discretionary release model that is used in this context.

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Data and Methodology

Data for this study were gathered from multiple state agencies, including the SPB, the Department of Criminal Justice (DCJ), and the State Police. The SPB provided data on all individuals who were released from prison in the year 2006 ($N = 12,555$) and included information about the type of release the individual experienced. Release types fell into three main categories: parole due to statutory mandate, parole due to an affirmative discretionary decision by the board, and unconditional release. For the purposes of this study, only discretionary parolees and unconditional releases were considered. Further information that highlighted whether the person was parole eligible and opted out of consideration per their own volition was attached to the unconditional release group.

The SPB database was provided to the DCJ so that criminal history information could be attached to each individual. This information was abstracted from a database of Computerized Criminal History (CCH) reports, which are ultimately maintained by the State Police. These reports highlight all formally recognized criminal involvement an individual experiences within the state. Because these reports only track in-state criminal activities, any arrests, convictions, and/or incarcerations that occurred within other states would not be highlighted and, consequentially, would not be available for analysis. While this serves as a limitation to the findings of this study, the alternative use of a more complete national-level information source maintained by the Federal Bureau of Investigations would likely result in more comprehensive but less accurate outcome data. Other researchers who have used these data have found them to be either missing information about criminal dispositions (Langan & Levin, 2002) or inconsequential to outcomes (Spivak & Damphousse, 2006).

This research explores post-release recidivism of voluntary max outs and discretionary parolees. Recidivism is defined as a new arrest and/or a new conviction after release from prison. For each case, dates on which arrests and/

or convictions occurred were analyzed in comparison to the release date that was provided by the SPB. Arrests and/or convictions that took place prior to the individual's release date were considered criminal history, while events that occurred after this date were considered recidivism. Criminal history data were attached to 12,187 of the 12,555 individuals released from New Jersey prisons in 2006. Of these, 6,464 were discretionary parole releases, and 1,372 were voluntary max outs.

Outcome data were attached on 31 October 2009, which allowed for the analysis of approximately three-year follow-up data. This date served as the censor within survival analyses for those who did not experience a recidivism event. In these analyses, time at risk is adjusted in order to compensate for the time discretionary parolees may have spent in prison due to technical parole violations. When a parolee has their community supervision term revoked in this study context, the violation is labeled as either a technical violation of parole or a violation due to new criminal activity. The former of these violation types is not a new criminal act (e.g., violations of curfew, not obtaining approval for a change in address, absconding, etc.) and is, consequentially, not reflected on the CCH reports. The latter is a new crime and is highlighted on CCH reports.

Because this research operationalizes recidivism as new criminal acts, survival analyses were used to account for the potential differences in time at risk between the two groups. In the Kaplan–Meier models, parolees who experienced a technical parole violation prior to a criminal recidivism event had the time spent in prison for the technical infraction subtracted from the time to recidivism. Additionally, for parolees who experienced a technical parole violation and did not subsequently experience criminal recidivism, the time spent in prison for the violation was subtracted from their overall follow-up time.

In New Jersey, parole board members are charged with extending early release to inmates who are eligible and are both likely to succeed on parole and invested in their own rehabilitation (N.J.S.A. 30:4-123.45, et. Seq.). Because the study context operates within a discretionary release process that uses these criteria, selection biases of which inmates are targeted for parole release are unavoidable. Research has found that those who are ultimately granted parole release tend to be lower-risk individuals when compared with those who are not released to parole in general (Caplan, 2007; Morgan & Smith, 2005; Turpin-Petrosino, 1999) and those who voluntarily opt out of parole in particular (Ostermann, 2010). While inmates are selected for parole release because they demonstrate as more likely to succeed in the community, it is unclear whether this group is more successful at remaining crime-free because the community supervision portion of parole works or because of these pre-release differences (or a combination of the two). Since it is not possible to account for these biases through a random assignment process, and opting out of the parole process is not an event that can be randomized, voluntary max outs were matched to discretionary parolees through the use of propensity scores.

Propensity scores communicate the probability of assignment to a particular treatment given a set of observed covariates (Rosenbaum & Rubin, 1983).

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Obtaining these probabilities allows for researchers to mitigate differences between treatment and comparison groups by balancing covariates between the two groups, conditional on the propensity score (Anstrom & Tsiatis, 2001; D'Agostino, 1998; Dehejia & Wahba, 2002; Sweeten & Apel, 2007). Scores are a single scalar measure ranging from zero to one that represents values of all observed covariates that are entered into the model. This makes matching group members across several variables less onerous, aiding the researcher in avoiding the curse of dimensionality (Becker & Ichino, 2002; Hahn, 1998; Luellen, Shadish, & Clark, 2005). Scores were constructed through predictive modeling (binary logistic regression) that an individual who was eligible for parole consideration would voluntarily forgo early release rather than participate in the process. Covariates that were used to construct the predictive models met two criteria: (1) they were found in previous studies to be related to post-release failure and (2) they were variables that the researcher was able to reliably measure. Covariates included the individual's age, ethnicity, type of instant offense, number of instant offenses, actuarial risk score, and criminal history.

Age reflects the individual's age in years at the time of their release in 2006. Ethnicity was collapsed into a dichotomous variable with whites serving as the reference category for individuals who were recorded by the DOC as being a minority (e.g., Black, Hispanic, or Asian). The type of instant offense was coded according to the most serious crime the individual was incarcerated for and subsequently released in 2006. Categories included property crimes, drug crimes, sex (non-violent) crimes, violent crimes, and other types of crimes. Crime types were dummy coded prior to being entered into the model resulting in five dichotomous variables with the individual's most serious crime type being coded as the category of interest and all other crime type variables serving as reference categories. The number of instant offenses communicates the number of crimes the individual was serving time for before their 2006 release. The actuarial risk score variable reflects the individual's cumulative score on a pre-release Level of Service Inventory-Revised assessment. Criminal history reflects the number of arrests the individual experienced prior to release.

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Results

Propensity scores were tested for statistical balance. Balance was tested through separating scores into equal strata and testing the statistical mean differences of propensity scores between treatment and comparison groups (Mears & Bales, 2009). In order to satisfy the balancing property "observations with the same propensity score must have the same distribution of observable (and unobservable) characteristics independently of treatment status. In other words, for a given propensity score, exposure to treatment is random and therefore treated and control units should be on average observationally identical" (Becker & Ichino, 2002, p. 359). Balance was tested, and achieved, between the treated (voluntary max outs) and comparison (discretionary parolees) cases

across all covariates that were entered into the predictive model across nine different strata.

Voluntary max outs and discretionary parolees were matched through the nearest neighbor method without replacement within a caliper distance of .001. This communicates that the propensity score of each individual voluntary max out was matched to an appropriate discretionary parolee within a distance of ±.001. Additionally, once a match was achieved, the comparison case could not be matched to any additional treatment cases (i.e., matches were one-to-one). The caliper distance of .001 is very conservative when compared with other studies in the field of criminal justice that utilize this method of matching (e.g., Gibson, Miller, Jennings, Swatt, & Gover, 2009; King, Massoglia, & MacMillan, 2007; Mears & Bales, 2009). This distance was chosen so that treatment and comparison cases would be very close approximations to one another according to the covariates that were entered into the predictive model. The desire to gain close matches between treatment and comparison cases was balanced with statistical power concerns. Because data was provided on a large pool of cases both within the treatment group as well as the comparison group from which matches were drawn, a very conservative caliper could be utilized while still allowing for sample attrition that would not significantly vitiate statistical power.

Prior to matching, groups consisted of 6,464 discretionary parolees and 1,372 voluntary max outs. After propensity scores were calculated and matching occurred, 991 voluntary max outs were matched to an equal number of appropriate discretionary parolees, resulting in a total sample size of 1,982. This study utilized bivariate statistical analyses in order to ascertain differences between matched groups regarding post-release recidivism. Tests include *t*-tests (two-tails) and chi-square analyses in order to explore macro-level differences in means and proportions, as well as Kaplan–Meier survival analyses, in order to explore group differences in outcomes over time while accounting for the actual time at risk experienced by individual group members. Using the G-Power software package to analyze the statistical power that resulted from these samples for each of these statistical tests, it was found that adequate power was obtained after the nearest neighbor matching occurred. Results from sensitivity power analyses connoted that all statistical tests would be capable of detecting very small effect sizes (e.g., effect size d for *t*-tests = 0.1259 and effect size w for chi-square tests = 0.0629) with traditionally established power levels of 80% and error probability levels of 5% given these sample sizes (Cohen, 1992).

Mean and proportion comparisons between voluntary max outs and discretionary parolees can be viewed in Table 1. Figures for both unmatched groups and matched samples are presented. For all unmatched comparisons, no between-group statistical tests were performed because the comparisons involve populations rather than samples (Mears & Bales, 2009). As highlighted in Table 1, voluntary max outs are, on average, about two years older than discretionary parolees at the time of their release, have less minority and male representation, and a slightly lower proportion of this group reports as being single.

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Table 1 Voluntary max outs versus discretionary parolees: descriptive comparison of means and proportions for unmatched and matched samples

	Unmatched			Matched		
	Voluntary max outs	Discretionary parolees	Difference	Voluntary max outs	Discretionary parolees	Difference
Age	36.50 (9.14)	34.33 (9.28)	2.17	35.71 (8.87)	35.78 (9.64)	−.07
% Minority	75.8	81.3	−5.50	77.6	78.7	−1.1
% Male	90.0	92.3	−2.3	89.9	91.4	−1.5
% Marital Status (Single)	81.0	82.7	−1.7	77.5	77.7	−.20
LSI-R score	24.77 (5.94)	22.94 (5.86)	1.83	24.58 (5.85)	24.64 (5.53)	−.06
% Instant offense type						
Drug	45.7	59.5	−13.8	49.6	51.8	−2.2
Property	25.3	18.2	7.1	24.7	24.2	.50
Sex	0.7	0.5	0.2	0.6	0.6	0
Violent	17.1	14.9	2.2	15.2	12.6	2.6
Other	11.2	6.9	4.3	9.9	10.8	−.90
% Number of instant offenses						
One	40.3	39.0	1.3	40.7	39.1	1.6
Two	26.6	28.3	−1.7	26.8	27.6	−.80
Three	14.2	15.3	−1.1	15.0	14.1	.90
Four or more	18.9	17.4	1.5	17.5	19.3	−1.8
Prior arrests	9.79 (7.48)	8.19 (6.43)	1.60	9.43 (6.86)	9.43 (7.50)	.005
Prior convictions	8.81 (7.30)	7.30 (6.08)	1.51	8.47 (6.71)	8.49 (7.29)	−.015
N	1,372	6,464		991	991	

Note. Standard deviations of means are presented in parentheses.

Prior to matching, voluntary max outs had about two more points on a pre-release Level of Service Inventory-Revised assessment, connoting that this group is, on average, higher-risk than parolees who were released per the board's discretion. According to established risk bands, this would put voluntary max outs in the moderate risk level (24–33 points) compared with parolees who would be in the low/moderate level (14–23 points) (Andrews, 1982). Voluntary max outs were less represented as having their most serious instant offense being a drug crime when compared with parolees, but were greater represented in the property, violent, sex offense, and other crime categories. The number of instant offenses for which these groups were incarcerated was similar. Prior to their 2006 release, voluntary max outs had almost two more prior arrests as well as convictions on their criminal record when compared to those who were released to parole. Mean and proportion differences for matched samples were performed, but no statistically significant between group differences were found for any of the descriptive variables highlighted in Table 1.

Results from the recidivism analyses can be viewed in Table 2. Unmatched comparisons show that a higher proportion of voluntary max outs experienced a post-release arrest (65.6%) as well as a post-release conviction (55.8%) when compared to parolees (59.5% and 46.4% respectively). Voluntary max outs also experienced a greater number of post-release arrests (1.71, SD = 2.07) and convictions (1.34, SD = 1.90), and for those who were rearrested and/or reconvicted, rearrests occurred, on average, about three months sooner and reconvictions happened about 2.5 months sooner when compared to parolees. Voluntary max outs who were rearrested and/or reconvicted took about 11 months to experience a rearrest and about 15 months to experience a reconviction.

All mean and proportion differences of the recidivism measures significantly differed between the matched groups. A significantly greater proportion of the voluntary max out group were rearrested (proportion difference = 4.6, χ^2 = 4.64, and p = .031) and/or reconvicted (proportion difference = 9.4, χ^2 = 13.93, and p = .000) during the three-year follow-up period. Matched samples also significantly differed according to the number of post-release recidivism events that were experienced. Voluntary max outs had, on average, 1.74 (SD = 2.10) post-release arrests and 1.34 (SD = 1.86) post-release convictions compared to 1.44 (SD = 1.85) rearrests and 0.96 (SD = 1.49) reconvictions for matched parolees. The difference in the time it took to experience these events significantly differed as well, with voluntary max outs being rearrested (t = 5.45 and p = .000) and reconvicted (t = 4.45 and p =.000) about three months sooner than their discretionarily released counterparts. After dividing the follow-up time into time intervals, a significantly greater proportion of voluntary max outs were rearrested and/or reconvicted across all of the intervals that were explored.

However, parolees could be potentially taken out of risk for recidivism due to technically violating terms of their supervision. While these violations are not recognized as criminal acts, they must be accounted for in recidivism analyses because of the potential impact that they could have on time at risk (Bales,

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Table 2 Voluntary max outs versus discretionary parolees: recidivism results for unmatched and matched samples

	Unmatched			Matched			
	Voluntary max outs	Discretionary parolees	Difference	Voluntary max outs	Discretionary parolees	Difference	t/χ^2
% Rearrested	65.6	59.5	6.1	66.5	61.9	4.6	4.64*
% Reconvicted	55.8	46.4	9.4	56.2	47.8	8.4	13.9***
Number of post arrests	1.71 (2.07)	1.40 (1.81)	.31	1.74 (2.10)	1.44 (1.85)	.30	3.3***
Number of post convictions	1.34 (1.90)	0.95 (1.48)	.39	1.34 (1.86)	0.96 (1.49)	.38	5.0***
Days to rearrest	326.57 (304.27)	417.31 (310.61)	−90.74	331.25 (302.53)	424.19 (305.71)	−92.94	5.45***
Days to reconviction	456.19 (316.30)	534.14 (316.57)	−77.95	458.87 (316.28)	546.95 (317.04)	−88.08	4.45***
% Rearrested within							
One month	5.1	2.8	2.3	5.1	2.9	2.2	5.81*
Two months	10.1	5.0	5.1	9.9	4.7	5.2	19.35***
Three months	15.5	7.2	8.3	14.9	6.9	8.0	33.25***
Six months	29.7	15.1	14.6	29.3	14.3	15.0	64.84***
One year	44.3	27.7	16.6	44.6	27.4	17.2	64.05***
Two years	57.1	46.3	10.8	57.5	47.0	10.5	21.87***
Three years	63.8	57.3	6.5	65.0	59.4	5.6	6.49*
% Reconvicted within							
One month	3.1	1.7	1.4	3.3	1.5	1.8	6.92**
Two months	4.7	2.8	1.9	4.7	2.7	2.0	5.62*
Three months	6.1	3.4	2.7	6.5	3.2	3.3	11.21***
Six months	11.2	6.1	5.1	11.3	5.6	5.7	21.25***
One year	26.4	14.4	12.0	26.1	13.8	12.3	46.97***
Two years	43.7	30.9	12.8	43.6	30.1	13.5	38.94***
Three years	53.6	46.8	6.8	54.1	44.4	9.7	18.60***
N	1,372	6,464		991	991		

Note. Standard deviations of means are presented in parentheses.
*$p \leq .05$.
**$p \leq .01$.
***$p \leq .001$.

Bedard, Quinn, Ensley, & Holley, 2005; Maltz, 1984/2001; Ostermann, 2010, 2011). Almost a quarter (21.3%) of all unmatched parolees experienced a technical parole violation during the follow-up time. The average amount of time that a parolee who experienced a supervision violation spent not at risk for recidivism was 268.43 (SD = 182.04) days. This time not at risk for this subgroup of the parolees significantly affected overall follow-up time when compared to voluntary max outs.

Voluntary max outs had a slightly longer average follow-up time of 1,234.46 (SD = 98.32) days compared to the pre-adjusted time of parolees (1,219.11; SD = 103.42 days). After adjusting for the time spent in prison due to technical violations, the parole group had a significantly shorter time that they could experience recidivism when compared to voluntary max outs (adjusted time at risk = 1,161, SD = 171.05; $t = -15.21$, and $p = .000$). After matching, 24.7% of the parolees had their parole violated and, as a result, required adjustments to their time at risk. The average time spent not at risk because of these violations was about two months (66.81 days and SD = 142.36 days). The resulting difference in mean follow-up time significantly differed between matched groups with parolees at risk for an average of 1,163 (SD = 170.81) days and voluntary max outs at risk for 1,224.75 (SD = 97.26) days ($t = -9.89$ and $p = .000$).

In order to explore the recidivism events in relation to follow-up time and time at risk, Kaplan–Meier survival models were constructed. Figure 1 shows the survival curves of the matched groups for rearrest with adjusted time at risk, while Figure 2 illustrates reconvictions. In both figures the curves are significantly differentiated with matched parolees surviving longer than voluntary max outs. Log rank tests indicated that between-group differences in survival time were statistically significant for both the time to rearrest (log rank = 12.76 and $p = .000$) and the time to reconviction (log rank = 17.59 and $p = .000$) analyses.

Discussion

The goal of this study was to provide insight into whether those who voluntarily forgo early release from prison through parole could potentially benefit from post-release supervision. The research was conducted in response to a recently passed law in the state of New Jersey, which requires all prisoners who are eligible for discretionary parole release to serve a mandatory six-month term of supervision in the community (N.J.S.A. 30:4-123.51d). This term is required of inmates who were previously denied parole as well as those who wish to not be considered for parole release. This aspect of the new law was created because of a perception by legislators that those who are released from prison without supervision have lower prospects of successfully transitioning back into the community when compared to those who are released to parole supervision (Associated Press, the, 2009; Di Caro, 2010). In addition to lowering recidivism, through the creation of this law legislators aim to save taxpayer money by

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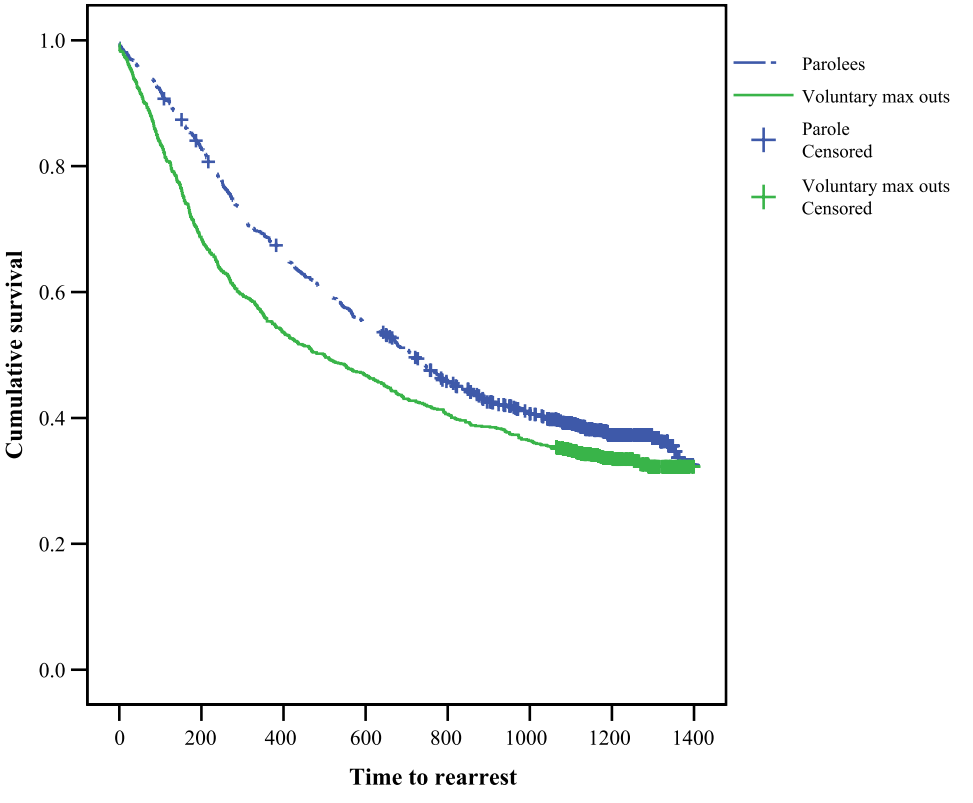

Figure 1 Matched samples Kaplan–Meier results: rearrest adjusted for time at risk.

decreasing the time that this group of inmates serves in prison (Associated Press, the, 2009; Star-Ledger Editorial Board, 2010).

In passing this law, policymakers aim to supervise these individuals during the most trying time of re-entry. However, the assertions of the lawmakers about how this population behaves after release and what relative benefits can be achieved by transitioning this group through parole are built upon assumptions rather than sound scientific evaluation. In order to empirically explore whether this population could potentially benefit from parole supervision, post-release recidivism characteristics of a release cohort of voluntary max outs and discretionary parolees who were matched on a propensity score were analyzed.

Findings from this research suggest that those who voluntarily forgo parole would likely benefit from some form of post-release supervision. As highlighted in Table 2, the differences in means and proportions between matched groups significantly differed on all of the dependent variables that were analyzed. Those who opted out of parole had significantly greater rates of post-release rearrest and reconviction as well as significantly greater mean numbers of reported post-release arrests and convictions. Further, the time it took for these individuals to experience these events was significantly shorter than that

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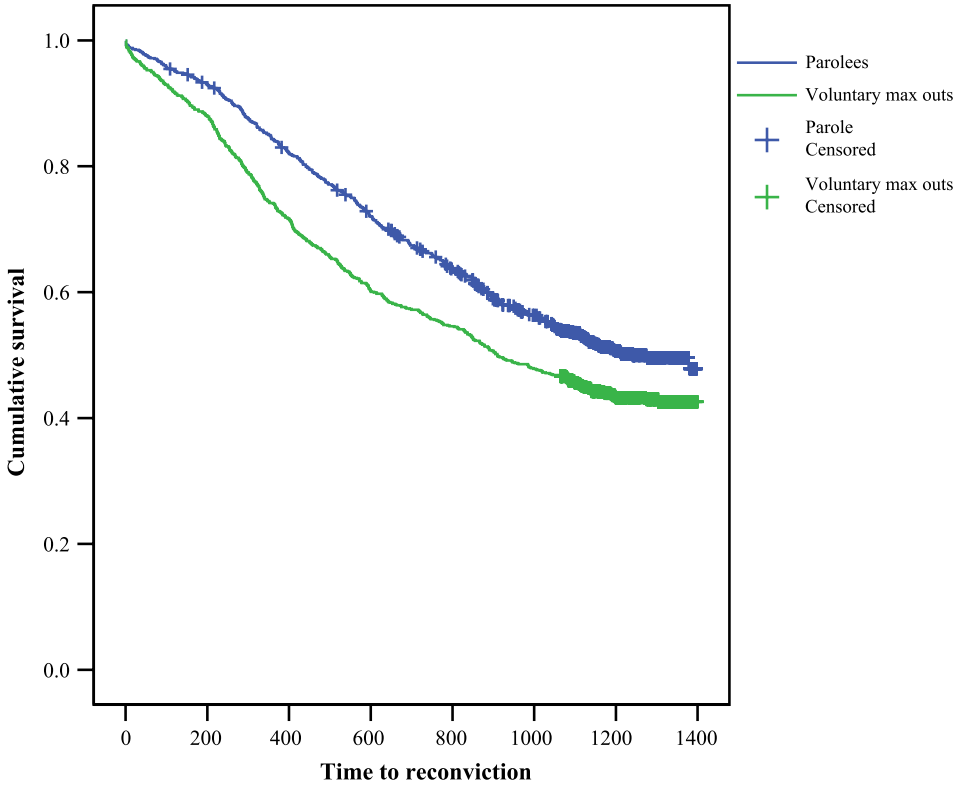

Figure 2 Matched samples Kaplan–Meier results: reconviction adjusted for time at risk.

for their matched parolee counterparts by approximately three months. When the time to failure was broken down into time intervals, a significantly greater proportion of voluntary max outs experienced a rearrest and/or reconviction across every interval. These differences were particularly pronounced during the intervals soon after release, but stabilized after approximately a year. The log rank tests that were performed in the Kaplan–Meier analyses indicated that the group differences in community tenure met a level of statistical significance even after accounting for the time that the discretionary parole group may have spent not at risk due to technical parole violations.

These results show that post-release supervision could potentially be beneficial for this group, but the absolute differences between the two groups are not large. The sponsors of this law have never explicitly stated in a public forum the recidivism reductions that they expect from mandating parole supervision for those who would have otherwise maxed out. However, one can reasonably assume that policymakers responsible for a law that will shift corrections policy in such a sweeping manner would have aimed to have a greater potential impact than what the results of this study indicate. Over the three years of follow-up time rearrest rates between unmatched groups differed by only 6.1% with

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matched groups differing by only 4.6%. Similarly, differences between reconviction rates were also nominal: unmatched groups differed by 9.4% and matched groups differed by 8.4%. Time to event intervals shows more pronounced differences shortly after release, and while the current law targets the most challenging time for a returning ex-inmate, the differences between the groups as time moved forward indicate that while parole may be keeping these individuals' arrest and conviction free for a while, lasting changes to promote a more pro-social and crime-free lifestyle are apparently not being accomplished.

If New Jersey legislators are interested in decreasing recidivism based off of sound scientific findings about the behaviors of returning ex-offenders, it is likely that greater benefit could be attained by abandoning the broad brush stroke approach that is explicated in the current law. Rather than creating a law that essentially allows inmates to self-select into risk groups, policymakers should focus on policy changes that more incorporate the findings from the "what works" literature. Special attention should be paid to findings that deal with the principles of effective correctional programming. These policy shifts should incorporate placing offenders in programs in line with their actuarially assessed risks and criminogenic needs in order to achieve greater outcomes. These proposed changes could require corrections' agencies within this context to focus their efforts on both sides of the prison wall on those who pose the greatest risk of recidivating.

Rather than singling out the voluntary max out population for mandatory supervision, the public would likely be better served by requiring supervision for those who are actually found, through the use of actuarial assessments, to pose a risk (Lowenkamp & Latessa, 2005; Lowenkamp, Latessa, & Holsinger, 2006). These risky individuals should be targeted for quality correctional programming in line with their expressed needs (Dowden & Andrews, 1999a; Lowenkamp & Latessa, 2005; Lowenkamp, Pealer, Smith, & Latessa, 2006). Further, program staff members should be responsive to the individual learning styles of these offenders in order to achieve the best results (Andrews et al., 2006). Prior studies analyzing the relationship between recidivism and adhering to these principles of effective correctional programming have found that programs that target interventions in accordance with appropriate risk and need levels can reduce recidivism by approximately 19% (Dowden & Andrews, 1999a).

While it would not be palatable for parole boards to grant release to high-risk individuals, a period of supervision could be built into their sentences at the front end of the correctional continuum by a sentencing judge. During this mandatory supervision period, this population could work toward early discharge by demonstrating pro-social engagement. Decisions of whether to discharge one of these parolees early could be met through a restorative process involving community members, community corrections' officers, parole board members, as well as the sentencing judge. This proposed early discharge incentive would likely result in increasing "buy-in" throughout the parole process, resulting in greater engagement in community programs offered through parole and ultimately increasing outcomes and creating lasting changes for these former inmates (Petersilia, 2007).

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Additionally, early discharge models may increase the appeal of parole to those who would have otherwise opted out of the process.

The current law will likely have substantial impact on New Jersey's corrections and parole systems. Future research efforts should be geared towards the analysis of how this law affects the broader local-level criminal justice landscape, beyond that of analyzing post-release criminal recidivism. Particular areas of interest include how the passing of this law will impact the rates of discretionary parole release, time served, workload and caseload size for parole officers, returns to incarceration for technical parole violations, the motivation of inmates to work toward affirmative parole release as communicated through rates of in-prison program participation and their involvement in disciplinary infractions, and how these shifts impact the monetary costs of corrections.

Additional research should be conducted on voluntary max outs. While the most recently available BJS report on prison releases indicates that the nation is experiencing increases in the rates at which people leave prisons unconditionally, numbers highlighting how many of this population experience this type of release due to a voluntary decision to forgo parole should be tracked by states and aggregated and reported by the BJS. New Jersey-specific figures indicate that almost 15% of the released population in a given year is released unconditionally per their own volition and that almost 40% of the max out population are voluntary cases (Ostermann, 2010). It would be informative to see numbers from other jurisdictions in order to shed light on whether this phenomenon is a local or national-level issue. These endeavors would also aid in informing discussions of the generalizability of findings from research that addresses this population. Finally, the reasoning behind why an inmate voluntarily forgoes early release should be empirically explored. Perhaps, if policymakers were armed with this knowledge, current and future legislation that addresses this population could be better formed in accordance with the actual viewpoints that are expressed by this group rather than anecdotal information and assumptions about their motivations to forgo parole.

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